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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/593,360	06/14/2000	Dennis W. Crabtree	0110SS: 44500	8364

7590 03/19/2002  
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EXAMINER

KIM, CHRISTOPHER S

ART UNIT PAPER NUMBER

3752

DATE MAILED: 03/19/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

SD

Office Action Summary

Applicant(s) 09/593,360	Applicant(s) CRABTREE ET AL.
Examiner Christopher S. Kim	Art Unit 3752

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1)  Responsive to communication(s) filed on 2 Nov 2001 & 16 Jan 2002.
- 2a)  This action is FINAL.
- 2b)  This action is non-final.
- 3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4)  Claim(s) 1-44 is/are pending in the application.
  - 4a) Of the above claim(s) 1-11, 19, 21-38 and 44 is/are withdrawn from consideration.
- 5)  Claim(s) \_\_\_\_\_ is/are allowed.
- 6)  Claim(s) 12-18, 20 and 39-43 is/are rejected.
- 7)  Claim(s) \_\_\_\_\_ is/are objected to.
- 8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

Application Papers

- 9)  The specification is objected to by the Examiner.
- 10)  The drawing(s) filed on 13 August 2001 is/are: a)  accepted or b)  objected to by the Examiner.
 

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11)  The proposed drawing correction filed on \_\_\_\_\_ is: a)  approved b)  disapproved by the Examiner.
 

If approved, corrected drawings are required in reply to this Office action.
- 12)  The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a)  All b)  Some \* c)  None of:
    - 1.  Certified copies of the priority documents have been received.
    - 2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    - 3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.
- 14)  Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
  - a)  The translation of the foreign language provisional application has been received.
- 15)  Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1)  Notice of References Cited (PTO-892)
- 2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3)  Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4)  Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 5)  Notice of Informal Patent Application (PTO-152)
- 6)  Other:

## DETAILED ACTION

### *Election/Restrictions*

1. Applicant's election with traverse of Invention III, Species E (figure 3D) in Paper No. 8 and 11 is acknowledged. The traversal is on the ground(s) that the claims have been amended so that the subcombination does not have separate utility and apparatus claims can not be used to practice another materially different process. This is not found persuasive because claims 12, 14, 20 and 39 do not require: the "first and second adjusting elements" recited in claim 1; the "automatic pressure regulating self-educting foam/fog fire fighting nozzle" recited in claim 19; a housing having an adjustable water passageway" recited in claim 21. Additionally, claims 12, 14 and 20 does not require the "pilot valve" recited in claim 44. Finally, claim 39 does not require the "orifice" recited in claim 44. The restriction between Inventions III, IV and I, II (process and apparatus for its practice) is maintained. The restriction between Inventions I, III and II, IV is withdrawn.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 1-11, 21-23, 33-38 and 44 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected Invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 8 and 11.
3. Claims 24-32 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected Species (as specified by the applicant in

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Paper No. 11), there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 8 and 11.

***Response to Amendment***

1. Preliminary amendment filed June 18, 2001 is acknowledged.

***Drawings***

2. The corrected or substitute drawings were received on August 13, 2001. These drawings are approved.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claim 20 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification as originally filed does not provide support of "at least 50 gpm" recited in claim 20, line 4.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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7. Claims 12-18, 20 and 29-43 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 12, the recitation of "a fire fighting fluid conduit" in line 3 appears to be a double inclusion of "a conduit" recited in line 2.

In claim 12, the recitation of "fire fighting foam concentrate" in line 8 appears to be a double inclusion of "fire fighting foaming concentrate" in line 1.

Claim 12 recites "foaming concentrate" in line 9. It is uncertain whether it is in reference to the "fire fighting foaming concentrate" recited in line 1, the "fire fighting foam concentrate" recited in line 8, or another foaming concentrate.

Claim 12 recites "a ratio" in line 9 but fails to define the ratio.

Claim 13 recites "the predetermined pressure drop varies by less than 100% over designed effective fire fighting fluid flow rates". It appears that the parameter for the percentage has not been defined. What is the 100% in reference to?

Claim 18 recites "baffle/piston" in line 2. It is uncertain whether applicant is claiming a baffle or a piston.

The above are examples and not a comprehensive listing. Applicant is required to ensure full compliance with 35 U.S.C. 112, second paragraph.

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 12-18 and 39-43 (as best understood) are rejected under 35

U.S.C. 102(b) as being anticipated by Klein (4,224,956).

With respect to claims 12-15, Klein discloses a method for proportioning fire fighting foaming concentrate into a variably flowing fire fighting fluid passing through a conduit comprising: adjusting a fire fighting fluid orifice 18; varying a fire fighting foam concentrate orifice 54; supplying fire fighting foam concentrate (column 1, lines 16-28).

With respect to claims 16-17, Klein further discloses a pilot valve 36 and spring 38.

With respect to claim 18, Klein further discloses a baffle/piston 36.

With respect to claims 39-43, Klein discloses a method for proportioning foam concentrate comprising: placing pressurized fire fighting foam concentrate in communication with pressurized fire fighting fluid flowing through a conduit (through opening 54); arranging a pilot valve 36. Measuring pressure drop is accomplished since the degree to which opening 54 is opened depends on the pressure drop across element 36.

### ***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

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the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Klein (4,224,956).

Klein discloses the limitations of the claimed invention with the exception of the nozzle and the flow rate range.

It would have been obvious to a person having ordinary skill in the art at the time of the invention to have used the valve of Klein as a terminal member (a nozzle) to spray the mixed fluid.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided a flow rate of at least 50 gpm for optimization dependent of operating criteria, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

### **Conclusion**


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher S. Kim whose telephone number is (703) 308-8336. The examiner can normally be reached on Monday - Thursday, 6:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry C. Yuen can be reached on (703) 308-1946. The fax phone numbers

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for the organization where this application or proceeding is assigned are (703) 308-7766 for regular communications and (703) 308-7766 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.



Christopher S. Kim  
Examiner  
Art Unit 3752

CK  
March 15, 2002